IN THE CLAIMS

The current claims follow. For claims not marked as amended in this response, any difference in the claims below and the previous state of the claims is unintentional and in the nature of a typographical error.

1. (Original) A router for interconnecting a plurality of interfacing peripheral devices, said router comprising:

a first switch fabric;

a second switch fabric; and

a plurality of routing nodes coupled to said first and second switch fabrics, each of said routing nodes comprising an input-output processing (IOP) module capable of forwarding received data packets to other ones of said IOP modules via said first and second switch fabrics, wherein a first one of said IOP modules forwards received data packets directed to a second one of said IOP modules by alternating between said first and second switch fabrics for each sequential data packet directed to said second IOP module.

2. (Original) The router as set forth in Claim 1 wherein said first IOP module forwards received data packets directed to a third one of said IOP modules by alternating between said first and second switch fabrics for each sequential data packet directed to said third IOP module.

3. (Original) The router as set forth in Claim 2 wherein said alternate selection of said first and second switch fabrics for forwarding of data packets between said first and second IOP modules is independent of said alternate selection of said first and second switch fabrics for forwarding of data packets between said first and third IOP modules.

4. (Original) The router as set forth in Claim 3 wherein said second IOP module is capable of determining that a next expected data packet from said first IOP module was not received in an alternating manner from said first and second switch fabrics.

5. (Original) The router as set forth in Claim 4 wherein said second IOP module, in response to said determination that said next expected data packet from said first IOP module was not received in an alternating manner from said first and second switch fabrics, determines that one of said first and second switch fabrics is faulty and ceases forwarding data packets to said first IOP module via said faulty one of said first and second switch fabrics and forwards all subsequent data packets to said first IOP module via the other one of said first and second switch fabrics.

6. (Original) The router as set forth in Claim 5 wherein said first IOP module is capable of determining that a next expected data packet from said second IOP module was not received from said faulty one of said first and second switch fabrics and, in response to said determination, said first IOP module ceases forwarding data packets to said second IOP module via

said faulty one of said first and second switch fabrics and forwards all subsequent data packets to said second IOP module via the other one of said first and second switch fabrics.

7. (Original) A communication network comprising a plurality of routers capable of transmitting data packets to and receiving data packets from each other and from interfacing peripheral devices associated with said communication network, each of said plurality of routers comprising:

a first switch fabric;

a second switch fabric; and

a plurality of routing nodes coupled to said first and second switch fabrics, each of said routing nodes comprising an input-output processing (IOP) module capable of forwarding received data packets to other ones of said IOP modules via said first and second switch fabrics, wherein a first one of said IOP modules forwards received data packets directed to a second one of said IOP modules by alternating between said first and second switch fabrics for each sequential data packet directed to said second IOP module.

8. (Original) The communication network as set forth in Claim 7 wherein said first IOP module forwards received data packets directed to a third one of said IOP modules by alternating between said first and second switch fabrics for each sequential data packet directed to said third IOP module.

9. (Original) The communication network as set forth in Claim 8 wherein said alternate selection of said first and second switch fabrics for forwarding of data packets between said first and second IOP modules is independent of said alternate selection of said first and second switch fabrics for forwarding of data packets between said first and third IOP modules.

10. (Original) The communication network as set forth in Claim 9 wherein said second IOP module is capable of determining that a next expected data packet from said first IOP module was not received in an alternating manner from said first and second switch fabrics.

11. (Original) The communication network as set forth in Claim 10 wherein said second IOP module, in response to said determination that said next expected data packet from said first IOP module was not received in an alternating manner from said first and second switch fabrics, determines that one of said first and second switch fabrics is faulty and ceases forwarding data packets to said first IOP module via said faulty one of said first and second switch fabrics and forwards all subsequent data packets to said first IOP module via the other one of said first and second switch fabrics.

12. (Original) The communication network as set forth in Claim 11 wherein said first IOP module is capable of determining that a next expected data packet from said second IOP module was not received from said faulty one of said first and second switch fabrics and, in response to said determination, said first IOP module ceases forwarding data packets to said second IOP module via said faulty one of said first and second switch fabrics and forwards all subsequent data packets to said second IOP module via the other one of said first and second switch fabrics.

13. (Original) For use in a router comprising a first switch fabric, a second switch fabric and a plurality of routing nodes coupled to the first and second switch fabrics, each of the routing nodes comprising an input-output processing (IOP) module that forwards received data packets to other ones of the IOP modules via the first and second switch fabrics, a method of forwarding data packets comprising the steps of:

receiving a stream of data packets in a first one of the IOP modules;

identifying in the stream of data packets a first group of data packets directed to a second one of the IOP modules; and

forwarding the first group of data packets from the first IOP module to the second IOP module by transmitting data packets in the first group alternately through the first and second switch fabrics.

14. (Original) The method as set forth in Claim 13 further comprising the steps of:

identifying in the stream of data packets a second group of data packets directed to a third one of the IOP modules; and

forwarding the second group of data packets from the first IOP module to the third IOP module by transmitting data packets in the second group alternately through the first and second switch fabrics.

15. (Original) The method as set forth in Claim 14 wherein the alternate selection of the first and second switch fabrics for forwarding of the first group of data packets between the first and second IOP modules is independent of the alternate selection of the first and second switch fabrics for forwarding of the second group of data packets between the first and third IOP modules.

16. (Original) The method as set forth in Claim 15 further comprising the step of determining in the second IOP module that a next expected data packet from the first IOP module was not received in an alternating manner from the first and second switch fabrics.

17. (Original) The method as set forth in Claim 16 further comprising the steps, in response to the determination that the next expected data packet from the first IOP module was not received in an alternating manner from the first and second switch fabrics, of determining in the second IOP module that one of the first and second switch fabrics is faulty and ceasing forwarding data packets to the first IOP module via the faulty one of the first and second switch fabrics and forwarding all subsequent data packets to the first IOP module via the other one of the first and second switch fabrics.

18. (Original) The method as set forth in Claim 17 further comprising the steps of:

determining in the first IOP module that a next expected data packet from the second IOP module was not received from the faulty one of the first and second switch fabrics; and

in response to the determination, ceasing forwarding data packets to the second IOP module via the faulty one of the first and second switch fabrics and forwarding all subsequent data packets to the second IOP module via the other one of the first and second switch fabrics.

19. (Original) A router for interconnecting a plurality of interfacing peripheral devices, said router comprising:

a plurality of switch fabrics; and

a plurality of routing nodes coupled to said plurality of switch fabrics, each of said routing nodes comprising an input-output processing (IOP) module capable of forwarding received data packets to other ones of said IOP modules via said plurality of switch fabrics, wherein a first one of said IOP modules forwards received data packets directed to a second one of said IOP modules by transmitting sequential data packets directed to said second IOP module in a round-robin manner through said plurality of switch fabrics.

20. (Original) The router as set forth in Claim 19 wherein said first IOP module forwards received data packets directed to a third one of said IOP modules by transmitting sequential data packets directed to said third IOP module in a round-robin manner through said plurality of switch fabrics.

21. (Original) The router as set forth in Claim 20 wherein said round-robin selection of said plurality of switch fabrics for forwarding of data packets between said first and second IOP modules is independent of said round-robin selection of said plurality of switch fabrics for forwarding of data packets between said first and third IOP modules.

22. (Original) The router as set forth in Claim 21 wherein said second IOP module is capable of determining that a next expected data packet from said first IOP module was not received in a round-robin manner from said plurality of switch fabrics.

23. (Original) The router as set forth in Claim 22 wherein said second IOP module, in response to said determination that said next expected data packet from said first IOP module was not received in a round-robin manner from said plurality of switch fabrics, determines that one of said plurality of switch fabrics is faulty and ceases forwarding data packets to said first IOP module via said faulty one of said plurality of switch fabrics and forwards all subsequent data packets to said first IOP module via the other ones of said plurality of switch fabrics in a round robin manner.

24. (Original) The router as set forth in Claim 23 wherein said first IOP module is capable of determining that a next expected data packet from said second IOP module was not received from said faulty one of said plurality of switch fabrics and, in response to said determination, said first IOP module ceases forwarding data packets to said second IOP module via said faulty one of said plurality of switch fabrics and forwards all subsequent data packets to said second IOP module via the other ones of said plurality of switch fabrics in a round robin manner.